

REMARKS

By this Amendment, claims 95-142 and 148-155 were cancelled. Claims 156-181 remain pending. The rejections set forth in the Office Action are respectfully traversed below.

Rejections Under 35 U.S.C. §103:

Claims 95, 97, 99, 101, 103, 104, 111, 113, 115, 119, 120, 127, 129, 131, 133, 135, 136, and 148-152 were rejected under 35 U.S.C. §103 over **Dolphin** (U.S. Patent No. 5,457,746), in view of **Atalla** (USP 4,588,991). Claims 105, 107, 109, 110, 121, 123, 125, 126, 137, 139, 141, 142, and 153-181 were rejected under 35 U.S.C. §103 over **Dolphin** and **Atalla**, and further in view of **Daniele** (U.S. Patent No. 5,444,779).

By this Amendment, only claims 156-181 remain pending. The rejections as to any other claims are therefore rendered moot. Reconsideration of claims 156-181 is respectfully requested in view of the reasons below.

A. Permit Keys for Respectively Different Functions

Independent claims 156 and 169 require a "one to one" relationship between a utilization permit key and a specific usage for the encrypted data. In other words, content encrypted with one specific utilization permit key can only be symmetrically decrypted with the same specific utilization permit key. For example, data encrypted with the display permit key cannot be decrypted with a storage permit key, an edit permit key, a transfer edit key, etc. Data encrypted with the transfer permit key cannot be decrypted with a display permit key, a storage permit key, an edit permit key,

etc. Of course, in the case of the edit permit key, there may also be display of the data in order to edit it. Nevertheless, even in the case of the edit permit key, other types of uses, such as storage, copy, and transfer, are prevented. Independent claims 156 and 169 specifically recite *each* of the utilization permit keys (used to decrypt the encrypted data) as "permitting *only* the corresponding at least one of the different types of uses of the digital data." This one to one correspondence prevents a hacker from finding one key and using it to decrypt encrypted data for all different types of uses.

With regard to claims 156-181, items 24-26 of the Office Action relied on **Atalla** (e.g., 1:30-35), **Dolphin** (e.g., 5:52-6:58), and **Daniele** (e.g., Fig. 2 and claims). However, nothing in the cited prior art (neither in the specific portions cited, nor anywhere else therein) teaches or suggests all the features recited in claims 156-181.

Atalla does not teach or suggest respective crypt keys for each of a plurality of different functions. Crypt keys are merely used in **Atalla** to decrypt files for authorized access and to re-encrypt the files to re-store them. **Atalla** does not employ nor require a plurality of utilization permit keys, each directed to at least one of respectively *different* requested functions. For at least these reasons, the present claimed invention patentably distinguishes over the cited prior art of record.

Likewise, **Dolphin** does not disclose a unique key to decrypt encrypted data for each of the respectively different operations of display, edit, copy, storage, and transfer. **Dolphin** discloses different keys for different attributes. As shown in Fig. 4, for example, different keys are used for various time durations to access the data. A different key may also be provided for other types of attributes, such as for transferring a certain number of bytes (presumably for a portion of the subject data), or for some predefined user application transaction (Fig. 4). Other attributes include a number

of times the key may be used, number of transactions, trial period (for access) without a copy or print capability, reduced resolution, etc. (see, e.g., 5:41-6:22). Such attributes are bound with a key (see, e.g., 6:11-16). However, there is no key uniquely reserved to decrypt encrypted data for each of the respectively different functions of display, edit, copy, store, and transfer.

As mentioned above, the present claimed invention's control of copyrights through the requirement for separate utilization permit keys for each of the different specific operations prevents a hacker from discovering and using one key to decrypt encrypted data for all different types of uses. **Dolphin's** attributes and corresponding keys do not specifically distinguish between each of the different functions of display, edit, store, copy, and transfer. Indeed, in some embodiments, **Dolphin** does not limit how accessed data is used. For example, for the various time durations described in Fig. 4, **Dolphin** permits access to the data with just one corresponding key, without limitation as to how the data is subsequently used. This is directly contrary to and teaches away from the present claimed invention. Basically, **Dolphin** does not teach or suggest the present claimed invention's degree of copyright security for secondary usage. For at least these further reasons, the present claimed invention patentably distinguishes over the cited prior art of record.

The further reference to **Daniele** does not remedy the deficiencies in the primary references to **Dolphin** and **Atalla**. While relied upon in the Office Action, nothing in **Daniele** describes the "menu selection" depicted in Fig. 2 as being associated in any way to the present claimed plurality of utilization permit keys, each for respectively different functions. **Daniele** discloses tracking and accounting for copyright royalties for reprographic and printing systems with the assistance of a visual glyph, displaying such information to the user via display 42, and offering the user various

royalty payment or reprographic choices (e.g., 8:40-9:26; 12:27-39; claims). This has nothing to do with the present claimed plurality of utilization permit keys, each for the respectively different operations. For at least these further reasons, the new claims patentably distinguish over the cited prior art of record.

B. Lack of Motivation to Combine Dolphin, Atalla and Daniele

The rejection of claims 156-181 relying upon the combination of **Dolphin** and **Atalla** with **Daniele** should be withdrawn for lack of motivation to combine in the manner claimed. There are several reasons for the lack of motivation to combine **Dolphin** and **Atalla** with **Daniele**, as described below.

First, the “glyph” described in **Daniele** is associated with watermarking techniques. **Daniele** is not directed to encryption technologies. On the other hand, **Dolphin** and **Atalla** relate to encryption technologies, but are not directed to watermarking. It is submitted that there is no motivation to combine encryption and watermarking technologies to achieve the present claimed invention. Although both encryption and watermarking may be used to protect the copyrights of digital data, each specific technology has been used conventionally in an independent manner. There is no prior art teaching or suggesting to use watermarking technology in combination with encryption technology. No prior art watermarking disclosures teach or suggest modification with encryption technologies. No prior art encryption technologies teach or suggest modifications with watermarking technologies. There is no conventional motivation to combine encryption and watermarking

technologies to achieve the present claimed invention. For at least this reasons, the rejections based on the combination of **Dolphin** and **Atalla** with **Daniele** should be withdrawn.

In addition, even though **Daniele** may employ digital processing, the important question is why would one skilled in the art want to combine the teachings of the addition of audit information or text data in the form of visual glyphs to the digital processing for access control as taught by **Dolphin** and **Atalla** in order to achieve the present claimed invention? Mere appreciation of copyright protection, or even a need for appropriate apportionment of copyright royalties, is not enough. The logic is that visual glyphs of **Daniele** are not necessary in the purely digital processing of **Dolphin** and **Atalla**. As defined in **Daniele**, the visual glyphs are two-dimensional symbols printed on a document (see, e.g., col. 6, lines 54-57). A visual, two-dimensional symbol, printed on a document is not electronic digital data that can be employed in **Dolphin** and **Atalla**. It is technologically unreasonable to add a visual printed element according to **Daniele** into the digital processing of **Dolphin** and **Atalla** to achieve the copyright management of digital data of the present invention.

The fact that **Daniele** is directed to the art of digital copying machines, whereas **Dolphin** and **Atalla** pertain to the art of digital processing, also raises the question for why the skilled artisan would want to apply the copyright protection mechanisms in reprographic machines to the access control teachings of **Dolphin** and **Atalla**. A fundamental reason for **Daniele** to require *visual* glyphs on printed documents is that its entire disclosure is directed to “reprographic devices” (Xerox machines) for reproduction of documents. **Dolphin** and **Atalla** are not concerned with hardcopy documents or reprographic devices. *Visual* symbols on *printed* documents are irrelevant to **Dolphin**

and **Atalla**'s disclosures. Again, the logic is that one skilled in the art would not make the combination. The point is that there is no motivation to do so.

Furthermore, there is no teaching or suggestion as to how **Dolphin** and **Atalla** could be modified to incorporate the teachings of **Daniele** for adding "visual glyphs" into visual documents and still maintain the proper functioning of the access control. The suggested combination between **Dolphin** and **Atalla** with **Daniele** would require a substantial modification and redesign of the elements shown in **Dolphin**, **Atalla**, and **Daniele**, as well as a change in the basic principles under which **Dolphin**, **Atalla**, and **Daniele** were each designed to operate. Moreover, there is no motivation to combine the "visual glyph" teachings of **Daniele** with the access control techniques of **Dolphin** and **Atalla** to achieve the features recited in the manner claimed in the present invention.

Summary:

It is submitted that nothing in the prior art, either alone or combination, teaches or suggests all the features of the present claimed invention, for any one of the reasons discussed above. Thus, the claims are all in condition for allowance. Reconsideration of the claims and an early Notice of Allowance is earnestly solicited.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney, at the telephone number indicated below, to arrange for an interview to expedite the disposition of this case.

Applicant: **Makoto SAITO**
Serial No.: **08/895,493**

GAU: **2131**
Page **8**

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this paper, may be charged to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN & HATTORI, LLP



John P. Kong
Attorney for Applicants
Reg. No. 40,054

Atty. Docket No. **990812**
1725 K Street, N.W., Suite 1000
Washington, DC 20006
Tel: (202) 659-2930
JPK/

Enclosures: Petition for Extension of Time